



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

Sept

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,293	05/10/2002	Mats Malmquist	1506-1001	8077
466	7590	02/25/2004		
YOUNG & THOMPSON			EXAMINER	
745 SOUTH 23RD STREET 2ND FLOOR			EPPERSON, JON D	
ARLINGTON, VA 22202				
			ART UNIT	PAPER NUMBER
				1639

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/069,293	MALMQUIST, MATS
	Examiner Jon D Epperson	Art Unit 1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 December 2003.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-7 is/are pending in the application.  
 4a) Of the above claim(s) 2,3 and 5 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,4,6 and 7 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/25/02</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### *Status of the Application*

1. Receipt is acknowledged of a Response to a Restriction Requirement, which was dated on December 1, 2003.

### *Priority Claims*

2. Claims Acknowledgment is made of applicant's claim for foreign priority based on an application filed on August 25, 1999 (i.e., SWEDEN 9903002-5). It is noted, however, that applicant has not filed a certified copy of the SWEDEN 9903002-5 application as required by 35 U.S.C. 119(b) or PCT Rule 17.

### *Status of the Claims*

3. Claims 1-18 were pending in the present application.
4. Applicant's response to the Restriction and/or Election of Species requirements December 1, 2003 is acknowledged (Applicant elected without traverse Group I, claims 1-7) and claims 8-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Art Unit: 1639

5. The Examiner further notes that Applicants canceled claims 8-11 in the December 1, 2003 response. Therefore, claims 1-7 are currently pending.

6. Please note: Applicant's elected species (Subgroup 1 = 96 openings, Subgroup 2 = 96 well microtiter plate, Subgroup 3 = 384 well plate; subgroup 4 = raised or depressed areas) were found in the art, see rejections below. Applicant is reminded of MPEP § 803.02 with respect to species elections:

On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a nonelected species, the Markush-type claim shall be rejected and claims to the nonelected species held withdrawn from further consideration. The prior art search, however, will not be extended unnecessarily to cover all nonelected species. Should applicant, in response to this rejection of the Markush-type claim, overcome the rejection, as by amending the Markush-type claim to exclude the species anticipated or rendered obvious by the prior art, the amended Markush-type claim will be reexamined. The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim. In the event prior art is found during the reexamination that anticipates or renders obvious the amended Markush-type claim, the claim will be rejected and the action made final. Amendments submitted after the final rejection further restricting the scope of the claim may be denied entry.

7. Claims 2-3 and 5 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species (see below i.e., Response to Restriction and/or Election of Species).

8. Therefore, claims 1, 4, 6 and 7 are examined on the merits in this action.

***Response to Restriction and/or Election of Species***

9. Applicant's election of Group I (claims 1-7) **without traverse** is acknowledged (i.e., see December 1, 2003 Response).

10. Applicant's election of species is also acknowledged (i.e., see December 1, 2003 Response). Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election of species has also been treated as an election without traverse (MPEP § 818.03(a) and/ or 37 CFR 1.111(b)).

11. As a result, the restriction requirement and/or election of species is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

12. The references listed on applicant's PTO-1449 form have been considered by the Examiner. A copy of the form is attached to this Office Action.

***Specification***

13. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claims Rejections - 35 U.S.C. 112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1, 4, 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. **Claim 1** recites the limitation "the opposite surface" in the fourth and last lines.

There is insufficient antecedent basis for this limitation in the claim. Therefore, claim 1 and all dependent claims are rejected under 35 USC 112, second paragraph.

B. **Claim 1** recites the limitation "the grid" in the fourth line. There is insufficient antecedent basis for this limitation in the claim. Therefore, claim 1 and all dependent claims are rejected under 35 USC 112, second paragraph.

C. **Claims 6** recite improper Markush format. For example, claim 6 reads "said physical characteristics being chosen among colour codes and patterns; raised and corresponding depressed areas such as velts and grooves or pins and holes." The term "and" must only be used once as the phrase "selected from the group consisting of" is also proper as outlined below. It is suggested to use standard Markush language; see MPEP 2173.05(h) concerning alternative expressions:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925).

When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper.

Therefore, claims 6 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

D. **Claim 7** is indefinite because it is not clear whether Applicants are trying to claim more than one statutory class of invention (i.e., apparatus and product) simultaneously? If Applicants are claiming only one statutory class of invention then the Examiner contends that it is not clear whether Applicants are claiming an “apparatus” or a “product”? For example, the device for use in performing small-volume chemical reactions that comprises a grid of openings on both sides of the device (e.g., see claim 1) would appear to be an apparatus. However, the “predisposed reagents” (e.g., see dependent claim 7) would appear to chemical reagents or products that are placed inside the apparatus. Applicants are requested to clarify and/or correct. Therefore, claims 7 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

Please note that other “statutory hybrid” claims are not rejected like product-by-process claims because Applicants make clear what is being claimed i.e., the product (see MPEP § 2173.05(p), “A claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in which it is intended to be used without being objectionable under 35 U.S.C. 112, second paragraph, so long as it is clear that the claim is directed to the product and not the process”) (emphasis added). That is not the case here. Applicants have not made clear whether the “apparatus” for performing small volume chemical reactions is being claimed or the “product” predisposed reagents that are being placed inside said apparatus.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

15. Claims 1, 4, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Coffman et al (Pub. No. US 2001/0001644 A1) (Date of Filing is May 21, 1999).

For *claim 1*, Coffman et al (see entire document) disclose a device for processing biological, biochemical or chemical samples (see Coffman et al, abstract), which anticipates claim 1. For example, Coffman et al disclose a device that have a number of openings on one surface (e.g., see figure 8, elements 13). Furthermore, Coffman et al disclose a device wherein said openings on one surface are individually connected to the same number of openings on the opposite surface (e.g., see figure 8 wherein each individual element 13 is connected to one individual element 26 on the opposite surface).

In addition, Coffman et al disclose a grid of said openings corresponding to a first microtiter plate format on one surface (e.g., see figure 8, wherein all of the elements labeled 13 correspond to a microtiter plate format; see also abstract wherein the "microtiter" plate is referred to as a "multiwell" plate). Finally, Coffman et al disclose a second, denser microtiter plate format, on the opposite side that "corresponds" to the first

plate (e.g., see figure 8 showing a denser array of elements 26 on the opposite side of elements 13; see also figure 1 showing the less dense top plate and the corresponding “denser” bottom plate).

For *claim 4*, Coffman et al disclose 96 well and 384 well plates (e.g., see Coffman et al, claim 23).

For *claim 6*, Coffman et al disclose various alignment mechanisms (e.g., see Coffman et al, page 2, paragraph 12 wherein “color codes” are disclosed; see also figures 16-17 wherein “raised areas” are disclosed).

For *claim 7*, Coffman et al disclose various predispensed reagents including biological, biochemical and chemical samples (e.g., see abstract; see also page 7, paragraph 74, “the present invention may further comprise reagents”; see also page 7, paragraph 75).

#### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon D Epperson whose telephone number is (571) 272-0808. The examiner can normally be reached Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/069,293

Page 9

Art Unit: 1639

Jon D. Epperson, Ph.D.

February 19, 2004

EDWARD D. EPPERS  
PH.D., INVENTOR  
